DOCUMENT RESUME

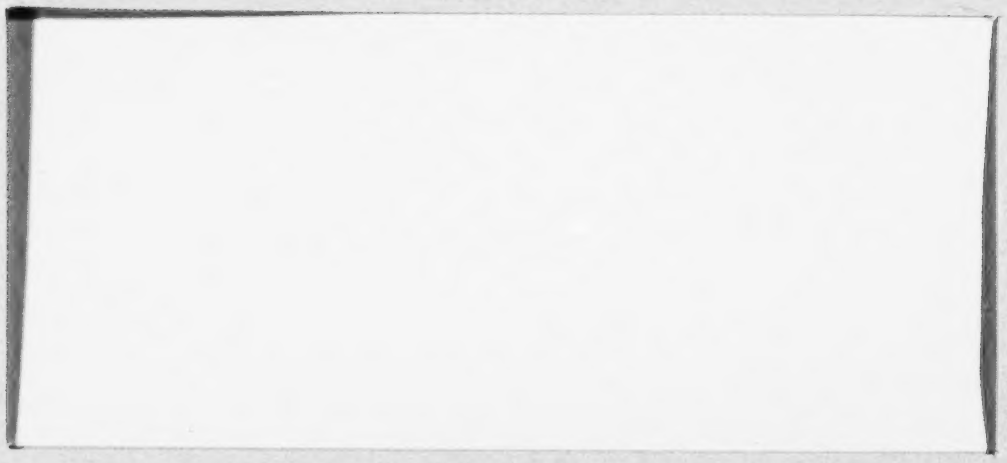
ED 060 601 EC 041 551

AUTHOR	Stuckless, E. R.; Enders, M.
TITLE	Three Studies of the Structural Meaning of English for Postsecondary Deaf Students.
INSTITUTION	National Technical Inst. for the Deaf, Rochester, N. Y.
SPONS AGENCY	Department of Health, Education, and Welfare, Washington, D.C.
PUB DATE	Jan 72
NOTE	80p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Aurally Handicapped; *Cloze Procedure; College Students; Diagnostic Tests; *Exceptional Child Research; *Language Ability; *Language Tests; Sentence Structure

ABSTRACT

Three studies were conducted concerning the skills of deaf postsecondary students in recognizing and manipulating linguistic structures in written language. The first study was a pilot study dealing with the deaf student's ability to identify structural units in written language. The second two studies, concerning the cloze procedure, examined the technique as a possible adjunct to a battery of language assessment instruments and assessed its usefulness as an instructional tool for possible incorporation in remedial language programs. Conclusions were that syntax recognition was too simplistic an approach to assessing linguistic ability of the students, and that the cloze technique, while more inclusive, was too general an indicator of overall language proficiency. Cloze was seen as a useful adjunct to, but not replacement for, a battery of tests for assessing language skills of deaf students. As an instructional technique, it was concluded that use of cloze should be left to the discretion of the teacher and tailored to the student's needs as interpreted by the teacher. (KW)

ED 060601



ntid

Division of Research & Training

EC 041 551 E

National Technical Institute for the Deaf

Three Studies of the Structural Meaning of English for Postsecondary Deaf Students

E. R. Stuckless & M. Enders

APR 17 1972

January, 1972

1. The postsecondary deaf student's ability to identify structural units and his written language proficiency.

2. Application of the cloze technique for describing the language of postsecondary deaf students.

3. Application of the cloze technique for language instruction of postsecondary deaf students.

This report was developed in the course of an agreement with the U. S. Department of Health, Education, and Welfare.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

TABLE OF CONTENTS

	Page
List of Tables	ii
Chapter I - Introduction	1
Chapter II - The postsecondary deaf student's ability to identify structural units and his written language proficiency.	13
Chapter III - Application of the cloze technique for describing the language of post-secondary deaf students.	22
Chapter IV - Application of the cloze technique for language instruction of post-secondary deaf students.	38
Chapter V - Conclusion	50
References	52
Appendices	
Appendix A	55
Appendix B	56
Appendix C	62
Appendix D	65
Appendix E	74

LIST OF TABLES

		Page
Table 1.	Per cent agreement among 20 judges on the Structure Test.	17
Table 2.	Performance of 141 deaf and 36 hearing postsecondary students on the cloze tests.	31
Table 3.	Correlation coefficients among various language measure for deaf students.	34
Table 4.	Oblique primary factor loadings for various language measures for deaf students (n = 141).	35
Table 5.	Means, standard deviations, and change scores group, on pre- and post-tests.	44

THREE STUDIES OF THE STRUCTURAL MEANING OF ENGLISH FOR POSTSECONDARY DEAF STUDENTS

Chapter I - Introduction

Background

This paper reports three studies concerning the skills of deaf students in recognizing and manipulating linguistic structures in written language. These studies grew out of an interest in the reading strengths and weaknesses of post-secondary deaf students,[1] and the exploration of instructional techniques which might contribute to reading with greater meaning.

Some of the handicapping implications of deafness for English communication have been well documented. Many laymen assume, however, that because of difficulty in speaking and understanding the spoken word, deaf students compensate by becoming highly skilled and prolific readers. Unfortunately, this does not follow. While some deaf persons do indeed become avid readers, reading remains for most a difficult and arduous task.

The magnitude of the problem is revealed in a report of an annual national survey of deaf students representing programs throughout the country (Annual Survey of Hearing Impaired Adults and Youth, 1969). The Advanced Battery of the Stanford Achievement Test was administered to 253 students aged 18, with hearing losses of 60 dB and greater. On the

---

[1] Students at the National Technical Institute for the Deaf of Rochester Institute of Technology, Rochester, N. Y.

subtest of paragraph meaning, less than three per cent of the students performed at a grade equivalent of 9.0 and above, while the median grade equivalent was 5.6. It should be added that performance on this subtest was lower than for performance on the sub-tests for the remaining academic areas.

Even this estimate of the average reading level of deaf students may be deceptively high. Moores (1967) compared a group of young hearing children and older deaf children who performed at similar reading grade equivalent levels on a standardized reading test. Materials developed using 'cloze' procedure (which will be described in substantial detail later in this report) were administered to both groups. Even though the reading levels of the two groups were not significantly different in terms of performance on the standardized reading test, the cloze test revealed higher 'verbatim' and "form class" scores for the younger hearing groups. Moores stated, "The fact that consistent predicted differences have been found in favor of the hearing group, although the two groups were matched on the basis of scores on a reading section of a standardized achievement test, supports the position that such standardized tests provide inflated estimates of achievement for deaf children and are limited in usefulness" (p. 95).

There are two sources for extracting meaning from what we read, the grammatic meaning, and the semantic meaning. Words formed and organized around each other to constitute groups of words and sentences (grammatic meaning), and the

particular connotations of the words (semantic meaning), combine to give potential meaning to the sentence. The grammatic meaning of a sentence, while related, can be distinguished from its semantic meaning.

(a) grammatic meaning. A number of studies, among them those of Berko (1961) have convincingly demonstrated that grammatic meaning can be attached to words in a sentence even though these words semantically are nonsensical. That is to say, in the sentence

"Wurbly wogs wutch wirgily"

we can readily identify the pattern as adjective, subject, verb, and adverb, based solely on morphological clues and position of each word in the sentence.

Fries (1963) has defined grammatic meaning as "the current 'sames' of the arrangements of form-classes (parts of speech), inflectional forms, and intonation sequences that constitute sentence structures" (p. 110).

What of the deaf student? Does he acquire a sensitivity to the grammatic meaning of a sentence comparable to that of his hearing peer? If, as Fries suggests, intonation is taken to include such auditory features as pitch, stress, and juncture, then it could be speculated that the deaf student is unlikely to master the grammatic meaning of a sentence as fully as the hearing student. If in turn this is so, it could in part account for the frequently stated observation that deaf students tend to be word readers. The first study in

this paper addresses itself in part to this question, by asking whether postsecondary deaf students are as capable as hearing students of breaking down sentences into their structural units, as in the sentence "A hungry animal/ raided/ Osborn's barn/ this morning."

The semantic component of words is in part dependent upon grammatic meaning. The meaning of a word or group of words is shaped by the context around it in the sentence or group of sentences. Fries states that it is the "co-occurrence of other items (words) of other lexical sets that identify the applicable meanings that a 'word' carries" (p. 104).

(b) semantic meaning. The basic meanings of words to the reader are the product of these words with their associations. To the hearing child, these words are initially phonemic in nature, the graphic form following as the child begins to learn to read. Not so for the deaf child. Often his first contact with the word is its graphic form, a form generally not introduced until after the child enters school. The vicarious association available to the hearing infant and preschool child are often lost to the deaf child.[1]

To date, no single method of teaching the meanings of words to deaf students has been completely successful. Many deaf students often continue to attach limited (or different)

---

[1] While the positions of advocates of aural, oral, and simultaneous oral and manual approaches to introducing language to the deaf infant differ substantially, they generally share the conviction that the deaf child must be introduced to language at an early age.

semantic meaning to common words when compared to hearing children. Walter (1969) used the Semantic Differential to investigate differences in the manner in which deaf and hearing children form the meaning of specific concepts. Walter concluded that deaf and hearing subjects differ in the kinds of meanings they attach to words, with more differences appearing in associations attached to word concepts than in associations attached to object concepts.[1]

The reading deficiencies of deaf students appear to be the summative and interactive effects of difficulty in attaching appropriate grammatic and semantic meaning to what is being read. The studies reported in later sections are the results of efforts to pinpoint reading difficulties and to identify potentially useful techniques for strengthening the reading skills of postsecondary deaf students.

Cloze technique

(a) development -- Cloze is a procedure which has received acceptance as both a research tool and an instructional technique, particularly in the area of readability of texts, reading assessment, and reading instruction. It is used currently with hearing populations in many reading clinics both at the high school and college level (Kazmierski, 1968). It has become increasingly recognized as a useful tool in the

---

[1] Rosenstein and MacGinitie's collections of studies, Verbal Behavior of the Deaf Child (1969), deals in detail with words meanings and associations among deaf and hearing subjects.

area of research on language difficulties among deaf students as well.

In practice, the cloze technique involves selecting a passage and deleting every n^{th} word (from every 5^{th} to 10^{th} word, depending on the specific application). The subjects are asked to complete the passage by filling in the missing words. Sometimes a list of the original answers appears at the bottom of the page; or, the student may be asked to produce his own choice of word for each blank left in the reading passage. The passage then may be scored in several ways, but generally the score is the total number of correct exact word (verbatim) completions. Other scores comparing correct form class responses with verbatim responses can be derived.

Any reading material may be selected depending upon the purpose of the cloze exercises to be generated from it. For instance, the first paragraph of this paper, when treated as a cloze exercise, might look like this:

> This paper reports three studies concerning the _____(1) of deaf students in recognizing and manipulating _____(2) structures in written language. These studies grew out _____(3) an interest in the reading strengths and _____(4) of postsecondary deaf students, and the exploration of _____(5) techniques which might contribute to reading with _____(6) meaning.

A cloze passage might look like an ordinary "fill in the blank" exercise; however, as the fill-in technique is tradi-

tionally used, the sentences containing blanks are unconnected, and chosen or generated because they contain specific constructions the teacher wishes to emphasize. The cloze technique differs in that the passage is a connected reading sample. Automatic deletion (deleting every n^{th} word automatically, in a pattern) will result in a passage in which words of different form classes ("parts of speech") have been deleted, in roughly the same proportions that these parts of speech occur naturally in written language. An alternative method for constructing cloze passages is to delete words of a certain form class -- such as all nouns or verbs -- if the exercise is to be used to emphasize that particular grammatical category.

The cloze technique originated with research related to mass communications, in studies of the effectiveness of written verbal information. Wilson Taylor (1953) presented the first comprehensive statement of the technique and its theory, although he credits experimental psychologists Charles Osgood and Melvin Marks with "instigating efforts which yielded the notion of cloze procedure" (p. 415). The term "cloze" derives originally from the gestalt psychologists' concept of closure -- the human tendency to complete a pattern by mentally filling in the existing gaps. Applied to language, the theory yielded completion tests of specific kinds, in which subjects reproduced, in oral or written form, segments deleted from a message. The subjects decided from the context which remained

what the missing part was. The cloze technique has come to be associated with reconstructions of written passages, particularly for the purpose of assessing or remediating reading and/or comprehension skills.

Studies of the redundancy of English and associated probabilities contributed information concerning the relative ability of subjects to reconstruct abbreviated or mutilated messages (Chapanis, 1954). Correlations were established between ability to perform cloze-type tasks and a subject's motivation, general intelligence, and familiarity with English structure (Miller and Friedman, 1957; Morrison and Black, 1957). Rubenstein and Aborn (1958) examined the relationships among learning, prediction, and readability using the cloze technique. Subsequent applications of cloze were concerned with the assessment of readability of texts. Bormuth's extensive study (1966) attempted to establish the reliability of the technique in this area, and compared cloze favorably with traditional formulas for measuring readability.

Taylor had predicted (1955) that the cloze technique could successfully be applied to many areas of research, assessment, and instruction. Cloze could be applied to auditory as well as visual communication, to languages other than English, and to quantification of different kinds of variables in the communications process. Reports given at a cloze symposium in 1968 confirmed that there are many areas in which cloze could be potentially useful. Of particular im-

portance was the indication that, as an instructional tool, cloze could facilitate the teaching of what was defined as grammar, syntax, composition, increased reading comprehension, and content.

While studies assuming the reliability of cloze have proliferated, Weaver and Kingston (1963) attempted to firmly establish the exact relationship between cloze and other, standard tests of reading, listening, and language symbolization abilities.

A summary of the literature dealing with cloze as an instructional tool appears in a review by Bickley, Ellington, and Bickley (1970). The authors conclude that "Despite some non-significant findings, there seem to be strong indications that the cloze is an important teaching device" (p. 242). This aspect of the cloze relates to the third of the three studies reported here, and will be discussed in Chapter IV.

(b) cloze technique and the language skills of deaf students -- A review of cloze literature by Bennett, Semmel, and Barritt (1967) concluded that "The use of the cloze technique with new populations may not only solve important theoretical issues, but may also prove to be a valuable index of verbal functioning with important predictive characteristics" (p. 13).

Although it was not the first effort to utilize cloze in the study of divergent language patterns, Moores' investigation (1967) of the cloze procedure in comparison with standard

reading test procedures is important in the search for alternative techniques in assessing linguistic abilities of deaf students. Moores found the cloze sufficiently sensitive to differentiate between deaf and hearing subjects matched on scores on the Stanford Achievement Test. He concluded that instruments standardized on hearing populations are inadequate to assess the linguistic characteristics of the deaf, and that they yield spuriously high reading scores for deaf subjects.

Moores (1970), in an article reporting some of the results of this study, expanded upon his conclusion that the technique appears to hold promise in helping establish a firmer basis for remedial instruction. Use of traditional methods of identifying and assessing deviant language patterns in the deaf -- analysis of writing samples and reading and grammar tests standardized on hearing populations -- appears to yield results which differ from results of cloze-type tests. This idea was also mentioned at an earlier date by MacGinitie (1964).

Other investigators have employed cloze in a research setting with deaf subjects. Quigley included it in a battery of tests in his longitudinal study of the effects of fingerspelling on the language abilities of deaf children (1968). Odom, Blanton, and Nunnally (1967) conducted some cloze technique studies of language capabilities of deaf children. Using every 3rd, 4th, and 5th word deletion patterns, they concluded that deaf students were able to take advantage of increasing amounts of context while hearing students were not. The deaf

subjects' performance was, however, still inferior to both that of hearing peers and younger hearing students on the cloze task. This, with other evidence, led them to conclude that the deaf use quite different types of rules in constructing a sentence than hearing subjects, particularly with regard to function words.

A recent study (Marshall, 1970), also has investigated the differential effects of increasing context -- that is, increasing both grammatic and semantic constraints. He suggested that we must revise generalizations we have based on past research about the linguistic abilities of deaf students. They are, contrary to his original hypothesis, able to make use of increasing amounts of context (with the attendent increase in constraint) in generating appropriate responses on cloze-type exercises. MacGinitie (1964) had previously indicated that evidence shown by cloze concerning ability of deaf students to utilize different form classes is at odds with other past observations, such as Audrey Simmons' analysis of written language of deaf students (1962).

The cloze technique, since it is sensitive to both grammatic meaning (form class scores) and semantic meaning (verbatim scores) was selected for use in the second and third of the studies reported in this paper.

The studies

The first of the three studies described in this report was a pilot study dealing with the postsecondary deaf student's

ability to identify structural units in written language. This investigation grew out of an interest in the idea that the ability to recognize structural units may be one isolatable element in the repertoire of skills required for writing and for reading written language.

A second study grew out of this interest in the elements of what is summarized in the phrase "ability to read". The cloze procedure appeared to incorporate many of these elements within the framework of a technique which is readily accessible and relatively easy to manipulate. The cloze studies were conducted in two phases: Phase I, the second study, attempted to examine the technique as a possible adjunct to the battery of language assessment instruments in use at NTID.

Phase II of the cloze studies, the third study, attempted to assess the possible usefulness of the technique as an instructional tool for possible incorporation within the remedial language programs at NTID.

Chapter II

The postsecondary deaf student's ability to identify structural units and his written language proficiency

Background

There is considerable documented evidence that young deaf adults, in spite of intensive instruction in language, continue to manifest major deficiencies in their ability to read, and to write grammatically correct sentences. By late adolescence, both reading proficiency and written language have become resistant to remediation.

It has been observed that the most propitious time to establish language skills is early in the deaf child's development. Indeed, considerable attention is being given by educators and linguists to this task. Nevertheless, the teacher of older deaf youth and adults remains confronted with, and challenged by, the poor grammar of his students. The techniques used by this teacher, if they are merely extensions of the techniques that have already been used with the student for twelve or more years, are unlikely to have meaningful payoff. New curricula must be prepared; innovative strategies must be considered.

Problem

Comprehension and production of connected language requires a mastery of word meaning, and the special meaning which comes from an understanding of the relationships among groups of words -- structural meaning. Audition appears to

play a primary role in the development of these linguistic skills as evidenced by the observation that most deaf children and congenitally deaf adults experience difficulty in mastering not only oral language but written language as well, both the reading and writing of it.

In attaching structural meaning to language, hearing children learn that words tend to be grouped in some predictable way. While unable to articulate why, they learn that a subject generally precedes a predicate, that a subject may include a single word or a group of words. In short, they learn that words are not generated randomly but in some sequential order, in clusters. For example, when we see the article "a", we look for a noun to follow. We are also accustomed to identifying clusters of words in terms of oral pauses, and voice inflection. These latter cues are not easily accessible to the deaf child.

A series of questions were drawn from this problem.

a. Do deaf students master structural meaning in sentences by the time they become young adults?

b. Is their ability to identify structural units in a written sentence related to their proficiency in written language?

c. Is their ability to identify structural units in a written sentence related to their proficiency in reading?

d. Can instructional procedures be developed to aid deaf students in identifying structural units in a sentence?

e. If so, does the refinement of this skill transfer into improved written language?

f. Does the refinement of this skill transfer into improved reading ability?

This study addressed itself to the first three of these questions. Exploration of the remaining questions was dependent upon answers to the first three.

Hypotheses

It was hypothesized that:

a. Deaf freshmen at RIT are less able to identify structural units in a series of declarative sentences than their hearing peers, and

b. the ability of deaf freshmen at RIT to identify correctly the structural units in a series of declarative sentences is related to their expressive written language proficiency, and to their reading ability.

Procedure

A. Sample

The sample of deaf and hearing subjects consisted of a group of 27 deaf and 23 hearing students at RIT. The deaf students had already been selected for another study.[1] The hearing students were selected from among students taking English classes within the College of General Studies at RIT, with the assistance of the chairman of the English Department.

---

[1] Walter, G. " A longitudinal study of deaf and hearing students in a post-secondary setting", National Technical Institute for the Deaf.

B. Tests

Three tests were employed in the study:

1. Written language proficiency. The Pittsburgh Language Assessment Instrument for the Deaf (PLAID)[1] was administered to all deaf students in September, 1968. This test requires students to write a narrative based on a sequence of four pictures. This language is scored in terms of mean sentence length, type-token ratio, and a grammatic correctness ratio. The test has been standardized on deaf students and yields a T-score derived from a multiple-regression equation. The subjects' scores in September, 1968 were the basis for establishing the criterion of written language proficiency referred to in hypothesis b.

2. Cooperative English Tests, subtest for Level of Comprehension.

3. Test for identifying structural units. A series of declarative sentences was generated. These sentences extended from two to twelve words in length and included varied structure and sentence configurations.

These sentences were presented to ten professional NTID staff and to ten faculty members of the Department of Language and Literature, RIT College of General Studies. These judges were asked to "Mark the sentences below" (see appendix A). Five samples, with appropriate markings, were given.

---

[1] "The Assessment of Written Language of the Deaf" Stuckless, E. R. and Marks, C., USOE Report, University of Pittsburgh, 1967.

Analysis of the responses indicated substantial differences among the 20 judges on their judgements of the structural units in several of the sentences. Two of these sentences were discarded. Six of the original sentences were altered and returned to the judges for marking.

The final test consisted of 21 sentences containing 81 structural units (Appendix A). Table 1 indicates the degree of agreement among the 20 judges (for six sentences, only 17 of the judges responded). Where four or less judges indicated a structural unit (17 instances), these were ignored.

The subject's score on the test consisted of the total number of correct markings (plus one at the end of each sentence), less the number of incorrectly inserted markings.

Table 1 Per cent agreement among 20 judges on the structure test

% agreement	No. of units
100	58
95	14
90	1
85	4
80	3
75	1
	81

Test administration

The test was administered to 27 deaf freshmen in a single group session. It was also administered to 23 hearing students through the auspices of the RIT English faculty. The subjects were given no instructions except "Mark the sentences below". Five examples were included at the top of the test paper.

Sufficient time was given to permit every subject to complete the test. The average time for completion was about five minutes.

Findings

The highest possible score was 81. The distributions of scores of both the deaf and hearing subjects were negatively skewed. The mean score for the deaf group was 73.4, with a standard deviation of 7.9. The mean score for the hearing group was 70.3, with a standard deviation of 10.4. The median for the combined groups was 75. The scores of the two groups were tested for significance of difference by the non-parametric median test. No significant difference was found in the performance of the two groups.

The relationship between the scores of the 27 deaf subjects on this test and on the PLAID was studied. The Spearman Rank Order test yielded a correlation of .24. This was not statistically significant. However, when the test scores were correlated with a subtest of the PLAID which yields a grammatic correctness score, the correlation of .42 was found to be statistically significant at the .05 confidence level.

The relationship between the test scores of the 27 deaf subjects and their total score on the Reading Comprehension test of the Cooperative English test was also examined. Again the Spearman Rank Order test was used. The correlation of .48 was statistically significant at the .05 confidence level.

Discussion

It had been hypothesized that deaf freshmen would demonstrate less ability to identify structural units than would their hearing peers. This hypothesis was rejected.

It had also been hypothesized that the ability of the deaf freshmen to identify structural units in a sentence is related to their expressive written language proficiency. While the relationship does not seem to hold for expressive written language globally, a relationship was detected for grammatic correctness.

A further analysis revealed a relatively strong relationship between the ability under investigation and reading proficiency in terms of comprehension.

Based on the evidence of this study, it was not recommended that major attention be given to instruction of deaf students at RIT in identifying structural units in a sentence, since at least for declarative sentences, many already possess considerable proficiency. However, a more detailed analysis of the findings might have suggested that those who had lower scores would profit from this type of instruction.

The findings of this study reveal a number of ambiguities. The evidence of a relationship between the ability to identify structural units and both expressive and receptive language proficiency suggests that the test taps a language factor. Yet the deaf students collectively performed as well as the

hearing students on the test, despite the fact that there is a mass of evidence that deaf students have a generally lower level of English language proficiency than their hearing peers.

A question must be raised relative to the validity of the test itself. Since the test was refined to yield high interjudge reliability, the ceiling was low. A test incorporating more complex grammatical structures would produce a greater spread of scores and perhaps lead to better discrimination among students.

In attempting to explain why deaf students might perform as well as hearing students on a test of this kind, it could be suggested that deaf students are drilled intensively in the mechanics of grammar through most of their school years. It is possible that a more detailed analysis of the deaf students' performance would reveal a dichotomy between those deaf students who had received intensive instruction in structuring language (e.g., the Fitzgerald System for teaching language to the deaf), and those who had not.

In addition, one of the assumptions upon which this study was based is that audition plays an important role in the development of linguistic skills, including the ability to recognize structural elements within written language. While this may be true for hearing children, the results of this study tend to refute the assumption that audition is of primary importance in the acquisition of competence in recognizing language structure.

First, from the standpoint of the hearing (who have already developed linguistic competence), Lieberman (1967) disputes the exaggerated emphasis put on the necessity of acoustic signals in analysis (or decoding and comprehension) of language structure:

> If it were necessary to have acoustic signals that provided specific cues for immediate constituent analysis, it would obviously be impossible to understand written tests. It is only when ambiguity arises that intonation becomes important.

In a footnote, Lieberman adds,

> An obvious parallel can be made with orthographic punctuation. Commas are essential only when a sentence might be ambiguous if the derived constituent structure was not indicated. Commas are otherwise not necessary for the understanding of the sentence. (p. 143)

In the case of deaf children, McNeill (1966) states that "The process of acquiring syntax is fairly well understood, and evidence is accumulating that [all] children have a general capacity to acquire syntax; an inborn set of predispositions, if you like, to develop a grammar of immense complexity and richness on the basis of very small amounts of evidence" (p. 17).

That deaf children, youth, and adults are able to master at least some elements of English structure is obvious because most <u>are</u> able to read and write to some extent. The results of this study indicate, moreover, that language competence is a complex proposition, and that attempts to assess or remediate the language of the deaf will require more than simple methods aimed at one element of language structure.

Chapter III

Application of the cloze technique for describing the language of postsecondary deaf students

Background

The results of the previous study dealing with the postsecondary deaf student's ability to identify structural units in relation to his written English language proficiency and reading skill indicated that the task of identifying structural units in a series of declarative sentences taps some language factor. However, a number of ambiguities were revealed in the findings of this study.

Several factors seemed to point to another approach to the problem of language proficiency among deaf students at RIT which might be useful. First, the test developed in the previous study required no production of linguistic forms on the part of the subjects taking the test. Second, deaf students seemed to be skilled at identifying structural units in the written language presented to them. In addition, a significant correlation was found between scores on the syntax test used in that study and scores of the same subjects on the Cooperative Reading Test. However, scores on a test requiring written language production (the PLAID) revealed no correlation in terms of total scores, and a relatively low (though statistically significant) correlation with a subtest dealing with grammatic correctness. These findings support the rather obvious assumption that the syntax test tapped a

language skill which was closer to recognition (receptive skill) than to production (expressive skill).

There is evidence to indicate that tests of written language proficiency alone (basically requiring production) or reading scores alone (basically a recognition task) do not reveal a complete picture of the overall English language proficiency of the deaf student. Therefore, some intermediate testing device involving both receptive and expressive language skills may be useful in yielding a more precise understanding of particular areas of English language proficiency among deaf students, and might at the same time provide a general index of language skills that include both types of skills.

One technique which has been used to provide an overall index of the divergence of a subject's language from that of normal speakers is the cloze procedure. Originally developed as an index of text readability[1], it has been applied experimentally to the area of deafness as a means of assessing the linguistic proficiency of deaf subjects (Moores, 1967). While the experimental treatment referred to here dealt with younger subjects, it was felt that the extension of the testing procedure used by Moores to deaf students at RIT might constitute a further step toward revealing possible remedial procedures for these older students, if it may be assumed that remedial instruction will indeed benefit students of college age, whose patterns of English language usage are already well established.

---

[1] See Chapter I for a detailed description of the cloze

Several questions were posed in the course of examining the cloze procedure and its possible applications to the English language skills of deaf subjects:

a) Are deaf students less able to perform this type of task than hearing students?

b) Since the cloze procedure involves both recognition and production skills, will scores on cloze tests correlate with scores on reading tests?

c) Will results using this testing procedure yield significant correlations with scores on written language proficiency tests?

d) Can remedial programs be developed based on areas of linguistic differences revealed by this device?

In the case of question a), a study conducted by Odom, Blanton and Nunnaly at Vanderbilt University (1967) revealed several results pertinent to the present study:

1) Hearing subjects' performance was superior to deaf subjects' performance.

2) Function words were more difficult to recognize and restore than content words.

3) Deaf subjects were able to perform better in predicting correct form class (but not exact word) given increasing amounts of context (where every fifth or sixth word was deleted).

4) The performance of hearing groups was not facilitated by increasing amounts of context.

5) The two deaf groups (younger and older) performed quite similarly.

From these results it was inferred by Odom, Blanton and Nunnally that a) different types of rules were being used by the deaf and hearing groups, and b) there is perhaps a ceiling effect produced in current techniques of English language training of deaf students.

In the case of the second question raised above (will cloze scores correlate with reading scores) it has been shown with hearing subjects that scores on cloze exercises correlate highly with reading scores (Rankin, 1959).

The relationship between written language proficiency and other measures of language ability has been examined by Weaver and Kingston (1963) for hearing subjects. In the case of deaf subjects, a factor analysis of scores on various types of tests dealing with language in one form or another might be expected to reveal which factors the cloze procedure is tapping. Comparison of data for deaf and hearing subjects might indicate further the nature of the divergence of so called "normal" (hearing) language and "deaf" language.

In addition, several methods of using cloze materials have been developed. Rankin (1957) demonstrated, again with hearing subjects, that different types of cloze exercises might reveal different factors in overall language proficiency. He differentiates "lexical" and "syntactic" tests, depending on the construction which deletes lexical items (nouns, pro-

nouns, etc.) or syntactic items (function words). Variation of cloze materials might further differentiate areas of differences between deaf students and their hearing peers.

The cloze procedure has been applied as a teaching device among hearing students, particularly in the area of reading. With regard to question d), it might be possible to apply cloze in connection with a remedial program for deaf students.

Several phases of research were identified from the above considerations. First, development and administration of an "every n^{th}" (automatic deletion) type cloze exercise would provide a set of scores for hearing and deaf subjects which could be compared with other language scores already available, using techniques of correlation and factor analysis, to reveal information about the cloze itself.

Development and administration of different types of cloze instruments could further differentiate factors.

A linguistic analysis of responses made by students could also be attempted.

Initially, the first type of study was undertaken, that is, administration of an automatic deletion type of cloze test to selected groups of hearing and deaf students at RIT.

Hypotheses

Several hypotheses emerge from the foregoing. It was hypothesized that:

a) Hearing students perform better than deaf students on the cloze test.

b) Cloze scores correlate with written language proficiency as measured by the PLAID (for deaf students).

c) Cloze scores correlate with scores on reading proficiency tests (for deaf students).

d) Factor analysis will reveal that the cloze taps an area of language proficiency related to reading comprehension and vocabulary.

Procedures

A. Sample

Two groups of students constituted the sample: incoming NTID (deaf) students in the Vestibule and CDA English programs, and a group of incoming RIT hearing students. As in the previous study, the English Department of the RIT College of General Studies provided assistance in selecting a group of students taking freshmen level courses.

Tests were administered to 36 hearing freshmen on a take-home basis since group administration was not feasible. The 153 NTID students who participated in the study were given the test during class time by instructors in the NTID Vestibule English Department. Only 141 of the tests were used in the analysis; 12 students were second year students who were enrolled in Vestibule English classes.

B. Tests

A number of test scores was already available for the incoming NTID students. All or parts of the following standardized tests were used in this study:

1. Stanford Achievement Test, High school Battery. Scores on subtests designated English and Reading were used.
2. Differential Aptitude Tests. Scores for Grammar and Verbal Reasoning.
3. Cooperative English Tests. Vocabulary and Level of Comprehension.
4. PLAID. Three scores from the Pittsburgh Language Assessment Instrument for the Deaf were used: Composition Length, Type-Token Ratio, and Grammatic Correctness.
5. Cloze. In the course of the development of the cloze tests to be used (see Appendix B for full text of tests and answer keys), a brief preliminary study was conducted to determine procedures for constructing the cloze passages and what materials might be appropriate. An important factor was the interest level of the reading material. SRA[1] materials intended for use with older students (high school and adults) who were experiencing reading difficulties were selected. Two passages with different topics were chosen, graded by SRA as 5.0 and 6.0 reading grade equivalent. Every 8th word was deleted from the selections, which were 430 and 442 words in length respectively, so that 50 responses were required per passage, a total of 100 items. The following procedures, based on the

---

[1] Science Research Associates, Inc. Chicago, Ill., 1968. Used with permission of publisher.

review of literature outlined in Chapter I of this report, were used in the deletion process:

a. Proper nouns were not deleted.

b. Names of cities (New York) and certain other words (New Yorker, Grant's Tomb) were treated as a single word in counting and deletion procedures.

c. Where contractions appeared as potential deletions, these were rewritten as two words and the first of the two words deleted. Example:

don't = do not = _____ not

Blanks of uniform length (12 spaces) were used in typing the tests, and the tests were two pages in length each. An instruction page was attached in which terms were explained. In administration of the test, additional instructions were given and examples used to illustrate the task to be performed by the students.

Two types of scores were derived for purposes of analysis:

a. Verbatim (V). Total number of correct exact-word completions.

b. Form Class (FC). Number of correct form class responses as determined following the classification system developed by Jones, Goodman and Wepman (1963), regardless of exact word.

For example, if a subject supplied another adjective where an adjective had been deleted, this was counted as a correct

FC response. Scoring was as liberal as possible to differentiate this score from the V score. A better label for this score might be "appropriate responses" rather than strictly FC.

C. Analysis

The scores of the deaf and hearing groups were examined for significance of difference.

Correlational techniques were used to determine whether scores on the various measures included in the study were related.

A factor analysis included scores for incoming NTID students on the various tests dealing with language skills that these students had taken at entrance.

Results

Scoring of the two passages included in the test resulted in four individual scores for each subject. While the two passages were relatively similar in reading level (5.0 and 6.0), it was possible that the two might yield differing results. Therefore, a V score and a FC score were assigned for each passage. These were treated as separate scores for purposes of analysis, and designated:

Cloze I - Verbatim score, Story One (Grade 5.0)

Cloze II - Form Class score, Story One (Grade 5.0)

Cloze III - Verbatim score, Story Two (Grade 6.0)

Cloze IV - Form Class score, Story Two (Grade 6.0)

A total FC score could be derived by adding Cloze II and Cloze IV,

and a total V score by adding Cloze I and Cloze III.

Ranges of scores and means for the two groups of subjects are given in Table 2. It was hoped, by scoring liberally on the Form Class score, to differentiate it as much as possible from the Verbatim score. The two types of scores were treated separately in order to test whether one type of score would yield results which differed in any way from results obtained using the other types of score. Tests for correlation, discussed below, showed that Verbatim and Form Class score were highly related. That is, a student who scored low on the Verbatim score would very likely score low on the Form Class score as well, relative to other students who might score high on V and FC. This supports evidence from other research on the cloze test which suggests that the Verbatim score alone is as valid a general indicator as the two types of scores combined. Inspection of all the responses on a student's test is naturally of interest to the teacher, however, since additional information is available that is not reflected in the raw score alone.

Table 2. Performance of 141 deaf and 36 hearing postsecondary students on the cloze tests

	DEAF			HEARING		
Test	Range	Mean[1]	SD	Range	Mean[1]	SD
I (verbatim)	1 - 29	10.75	5.84	21 - 40	30.27	4.37
II (form class)	18 - 47	33.19	7.03	43 - 50	47.50	1.92
III (verbatim)	0[2] - 26	9.48	4.21	24 - 38	30.16	3.44
IV (form class)	0[2] - 48	30.57	5.48	45 - 50	48.58	1.34

[1]Possible score for each test is 50.

[2]One student did not complete Story Two, and none of his responses were correct even in terms of Form Class.

a. Deaf and hearing students performance

The t-test was used to determine whether there were significant differences between mean scores on each of the four tests for hearing and deaf subjects. The t value was found to be significant beyond the .0001 level of confidence in all cases. It appears also that there are no differences in the difficulty of the passages, at least in terms of responses by both hearing and deaf students. Based upon this evidence, the first prediction, that hearing students would perform better on the cloze test than deaf students, was confirmed.

b. Cloze and written language proficiency

Tests for correlation were employed upon the scores of the 141 deaf students on the measures of language proficiency outlined previously, including the Pittsburgh Language Assessment Instrument for the Deaf. The matrix of correlation coefficients for all tests is found in Table 3. Inspection of the table reveals that there is negligible correlation between the subtests Composition Length and Type-Token Ratio with the cloze tests. There is substantial correlation indicated between the Grammatic Correctness subtest and the cloze tests. On the three PLAID subtests, then, the only relationship to the cloze test is found in the area of "grammar"; both this subtest and cloze require some knowledge of usage, tense, number, and so on.

It would be difficult to argue with much confidence that the cloze is strongly related to written language proficiency as measured by the PLAID. There is a positive correlation, but it is of low magnitude.

c. Cloze and reading

It had been predicted that cloze scores would correlate with scores on reading tests. Two reading tests were included in the testing, the Stanford Reading and the Cooperative English subtest for Level of Comprehension. Inspection of Table 3 indicates that there is a stronger relationship between reading and cloze performance than between cloze and writing proficiency. In addition, it appears that the cloze has more in common with the skills being measured by the Cooperative English reading subtest than with the skills being measured by the Stanford.

d. Factor analysis

Factor analyses have been conducted by other investigators using test scores for hearing students on tests similar to those included in the present analysis (Weaver and Kingston, 1963). More tests were involved, including several different types of cloze tests. The factor analysis carried out by Weaver and Kingston yielded three factors: "verbal comprehension", "rote memory, flexible retrieval", and "redundancy utilization", as the investigators labeled them. Cloze tests seemed to be related to the factor called "redundancy utilization".

Table 3 - Correlation coefficients among various language measures for deaf students[1] (n = 141)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. CVOC		.44	.59	.41	.19	.27	.30	.20	.30	.57	.38	.49	.35
2. CCOM			.53	.44	.23	.23	.30	.30	.34	.47	.34	.41	.41
3. DTVR				.37	.22	.19	.31	.29	.27	.65	.52	.53	.48
4. DTGR					.18	.25	.37	.34	.31	.46	.46	.45	.39
5. PLCL						.27	.27	.12	.12	.14	.16	.14	.14
6. PLTR							.72	-.00	-.04	.20	.14	.18	.13
7. PLGC								.23	.20	.38	.32	.32	.27
8. STEN									.83	.36	.40	.29	.38
9. STRD										.29	.29	.27	.32
10. CLZ 1											.72	.67	.65
11. CLZ 2												.54	.69
12. CLZ 3													.48
13. CLZ 4													

KEY: 1. CVOC = Cooperative English Tests, Vocabulary
2. CCOM = Cooperative English Tests, Level of Comprehension
3. DTVR = Differential Aptitude Test, Verbal Reasoning
4. DTGR = Differential Aptitude Test, Grammar
5. PLCL = PLAID, Composition Length
6. PLTR = PLAID, Type-Token Ratio
7. PLGC = PLAID, Grammatic Correctness Ratio
8. STEN = Stanford Achievement Test, English
9. STRD = Stanford Achievement Test, Reading
10. CLZ 1 = Cloze Test, Verbatim, Story One
11. CLZ 2 = Cloze Test, Form Class, Story One
12. CLZ 3 = Cloze Test, Verbatim, Story Two
13. CLZ 4 = Cloze Test, Form Class, Story Two

[1] p.05 - .1946
p.01 - .2540
p.001- .3211

A factor analysis including cloze scores and other verbal scores by students at NTID (Table 4) yielded only two factors, one of which might be tentatively called a "Stanford" factor. Other investigators have indicated that the Stanford may reveal high intercorrelations between its subtests, but may not be strongly related to other tests. The Stanford, of course, was standardized on hearing populations, and, as with other tests, has not been proven to be of great value in evaluating deaf students. For these reasons, this factor is difficult to interpret.

A second factor included loadings on all the other tests used in the analysis, but especially the cloze and Differential Aptitude Verbal Reasoning, Coop. Reading and Vocabulary, and PLAID Grammatic Correctness. However, this factor is not well defined; it is difficult to identify or label the factor which might be operating here except in a very general way as "verbal reasoning + grammatic structure".

Table 4. Oblique primary factor loadings for various language measures for deaf students (n = 141)

		I	II
1.	Coop. Vocabulary	-.54	-.17
2.	Coop. Comprehension	-.43	-.26
3.	DAT Verbal Reasoning	-.52	-.28
4.	DAT Grammar	-.43	-.25
5.	PLAID - Comp. Length	-.34	.05
6.	PLAID - Type Token Ratio	-.87	.53
7.	PLAID - Grammatic Correctness	-.81	.24
8.	Stanford English	.23	-.91
9.	Stanford Reading	.26	-.90
10.	Cloze 1	-.56	-.37
11.	Cloze 2	-.41	-.43
12.	Cloze 3	-.49	-.29
13.	Cloze 4	-.35	-.44

Conclusions and implications

There are quite dramatic differences in the performance of hearing and deaf students on cloze tests, not only in terms of raw scores, but also with regard to the kind of skill -- or deficiency -- tapped by the cloze. Whereas hearing students appeared to exhibit (in other research) various types of skills in relation to reading and writing tasks, deaf students appear to exhibit a general 'deficiency' (or divergence from the norm) which cannot be isolated as "reading deficiency", or "grammar problems", or placed in any simple category. The divergence appears to be pervasive, so that deaf students score fairly uniformly low on many types of verbal tests. It may be that remedial work on isolated areas, such as vocabulary, spelling, grammar, reading, and so on, may all approach the difficulty; but it would appear that more information is needed to define the underlying language divergence exhibited by many deaf students.[1]

This initial testing phase was essentially of an information-gathering nature. Some very general and tentative conclusions may be stated as follows:

1. The cloze test taps some skill that is related to other measures of language ability; this can be interpreted to mean that information on cloze scores may serve as a general

---

[1] In this regard, the investigators are looking forward with great interest to publication of the results of work presently in progress at the University of Illinois, under the direction of Dr. Stephen Quigley.

indicator of overall skill, as do other tests. As a general indicator of linguistic abilities, the cloze is neither superior nor inferior to other tests used in this analysis.

2. The relationship between cloze scores and other English scores by deaf students is not so close that further analysis of cloze tests may not yield more information about linguistic skills. More information should be obtained on deaf students' performance on cloze-type tests.

3. Within the cloze test itself, the relationship between Verbatim scores and very loosely interpreted Form Class scores is such that either type of score -- or the Verbatim score alone -- may be used as a general indicator of overall performance.

4. The cloze test has been used by others as a readability index; comparisons with reading scores for NTID students indicates in a very general way that reading tests standardized on hearing populations (Stanford and Cooperative English Tests) do not yield a realistic indication of deaf students' overall performance. This has been suggested in other literature; results of cloze testing with NTID students would seem to support this contention.

Chapter IV

Application of the cloze technique for language instruction of postsecondary deaf students

It is the purpose of this chapter to report briefly on a six-week Experimental Language Instruction (ELI) summer program which investigated the cloze technique as it might be used for instruction. A number of difficulties were encountered in the conduct of this phase of study of the cloze technique. It was felt that, while statistically significant findings did not result, the process of conducting the six-week program and the experience of using cloze in that setting did yield important anecdotal information which should be reported.

Background and rationale

Chapter I of this report cited references (Bickley, Ellington, and Bickley, 1970) to the use of the cloze technique as an instructional tool. The Reading and Study Clinic at Rochester Institute of Technology has made use of the technique in its reading programs, as do a number of other clinics dealing with hearing students at the high school and college level.

It was felt that, even though few studies could report successful quantitative results using the cloze technique as an instructional tool, the precedent set by reading and study clinics serving hearing clientele was sufficient rationale to warrant adapting and investigating the technique for use with deaf students on a trial basis.

Accordingly, a six-week experimental program was conducted using cloze materials in several alternative methods.

Procedures

A. Sample

Seventy-six students, newly admitted to NTID and on the RIT campus for an eight week summer preparatory program, participated in the Experimental Language Instruction (ELI) sessions. These students were randomly assigned to four sections, three treatment groups and one control group, upon arrival at NTID.

One of the three treatment groups (see Instructional Procedures below) was divided into three subgroups of about six students each to facilitate interaction with the discussion leader.

During the first week of the summer session for new students, a battery of pre-tests was administered. In addition, students received a short written explanation, according to the group to which they were assigned, of what they would be doing during the ELI sessions (see Appendix C).

B. Materials

Cloze passages were constructed for 17 instructional sessions, using the Reading Attainment System series of reading materials.[1] These were specially prepared, high interest, low reading level materials designed for remedial reading

[1] Grolier Educational Corporation, New York, 1969. Used with permission of the publisher.

instruction. Passages selected had been graded by Grolier as approximately 4.1 (grade equivalent) using a revised Farr-Jenkins-Patterson formula. A sample exercise, with different instruction pages for the three treatment groups, an answer key, controlled choice list and a score chart, are included in Appendix D.

Passages were reduced by the principal investigator to approximately 350 words in length, and an automatic, every 8th word deletion pattern was used. All three groups of students received the same reading passages, but the procedures varied in such a way that one group also used a list of two choices per blank in completing the cloze exercises, and all three groups used an answer key to check each passage after completing it. The list of two choices per blank was constructed so that the distractor for each item differed either sematically or grammatically from the correct response.

All three groups, after completing the cloze exercise for each session, recorded their scores for the day on a chart. A sample chart is included in Appendix D.

C. Instructional Procedures

Students met three days per week, one hour each session, for a total of 17 sessions. Each of the three treatment groups used a different instructional method.

Group I - Free Response. Students met as a group and worked individually on cloze exercises distributed by a proctor who was an NTID upperclassman. Instructions were

given by the proctor (see Appendix E for procedures for all three treatment groups). After students completed the cloze exercise, they were given an answer key, asked to grade their own papers, and record the score on their score chart.

Group II - Controlled Choice. Students met as a group and worked individually. The proctor for this group was also an NTID upperclassman who gave instructions and distributed cloze exercises and a choice list containing two words for each blank in the passage. Papers were graded by students who also marked score charts at the end of each session.

Group III - Discussion. Groups I and II used methods which were essentially self-instructional. Students in Group III completed a cloze exercise at the beginning of each session and then discussed their answers with a group leader. The group was required to arrive at a consensus answer which all could accept. The task of the leader was to guide students in explaining reasons for their choices and to help students search for context cues within the passages. Students scored exercises at the end of the session for V responses only, and recorded their score on a score chart. Discussion leaders were instructors in the NTID Vestibule English and Research Departments, as well as several other NTID administrators.

Group IV - Control. This group met at the outset of the experimental period for pre-testing, and again, six weeks later, for post-testing. They did not meet during the interval.

D. Tests of Performance

Subjects were administered pre- and post-tests during the first and final summer sessions. Three tests (one with two subtests) were used as criterion measures:

1. CLOZE. A cloze test prepared in the fall of 1969 was used. This is the same test developed and used in the second study reported here (Chapter III). A total score was used for purposes of analysis, consisting of V responses for Story I plus V responses for Story 2.

2. Coop. Reading. The Cooperative English Tests, subtests for Reading Comprehension and Vocabulary, were administered to provide an index of reading skills.

3. PLAID. The Pittsburgh Language Assessment Instrument for the Deaf was administered to provide an estimate of written language proficiency.

E. Analysis

Pre- and post-test performance of the four groups of incoming NTID students were compared on each of the three criterion tests. Interactions among the three instructional procedures and performance on the three criterion tests were studied.

Results

Students' scores on each of the pre and post measures were compared by groups. Means and standard deviations for each group for the four measures, pre and post, are presented in Table 5. It is evident that groups varied on both the pre and post measures.

Although subjects had been randomly assigned to each of

the four groups, 19 per group, the investigators erred in not double-checking to be sure the four groups were equated on the four pre-test measures until the experimental period was over. On a post hoc basis, an analysis of variance was conducted to on each of the four pre-test measures among each of the four groups. While a significant F was obtained on only one of the measures, the Vocabulary subtest of the Cooperative Reading Test, casual inspection of the differences among the groups (see Table 5) strongly suggested that indeed real differences did exist. Group I performed highest on three of the four measures, while Group II performed lowest on all four.

In an effort to correct this error, an analysis of covariance was conducted on each of the four post-test measures, using pre-test scores as covariables. None of these analyses proved significant.

Further inspection of Table 5 does suggest that some changes may have been taking place. First, on the pre-post cloze measure, all four groups showed some gain, control group included. This is not unexpected, if only because the same form of the cloze was used as a pre- and post measure. At the same time, it may be notable that the group showing least gain (+ 2.95) was the control group. The group showing greatest gain (+ 9.06), was the group which received the completely self-administered treatments, where students made free-responses, with no following discussion.

The investigators inspected the student - kept charts (see

Appendix D) for all the experimental groups, and noted trends toward improved cloze performance over the 17 sessions.

At the same time, inspection of Table 5 reveals little change on the reading and written language measures over the six week experimental session. Indeed, performance on the PLAID

Table 5. Means standard deviations, and change scores by group, on pre- and post-tests.

	Pre-test		Post-test		Change scores
	Mean	SD	Mean	SD	
A. CLOZE (Total)					
Group I.	24.05	13.55	33.11	12.97	+ 9.06
Group II.	17.00	11.91	21.00	12.36	+ 4.00
Group III.	19.32	11.98	26.16	12.30	+ 6.84
Group IV.	26.63	16.05	29.58	14.35	+ 2.95
B. Coop. (Vocab.)					
Group I.	23.16	8.80	24.79	77.88	+ 1.63
Group II.	14.71	5.24	18.32	6.80	+ 3.61
Group III.	18.68	4.27	19.16	5.14	+ 0.48
Group IV.	18.63	5.40	19.89	5.00	+ 1.26
C. Coop. (Comprehension)					
Group I.	11.58	5.66	11.37	4.64	- 0.21
Group II.	8.12	2.68	9.84	3.84	+ 1.72
Group III.	9.63	3.59	8.28	3.16	- 1.35
Group IV.	8.89	3.56	9.84	3.81	+ 0.95
D. PLAID (Total)					
Group I.	66.44	4.16	63.09	5.85	- 3.35
Group II.	60.46	5.19	59.13	5.83	- 1.33
Group III.	61.75	5.10	59.54	5.14	- 2.21
Group IV.	64.07	4.70	63.17	6.73	- 0.90

dropped for all four groups.

If the instructional period had value for the students, it would seem to be limited to improved ability to perform on the cloze itself. Whether a more extended period of instruction of

a year, for example, would have produced greater change, is completely open to speculation.

Discussion

Because meaningful statistical analysis was not possible, the other results which may perhaps be of value are of an anecdotal nature. The following discussion deals with general observations concerning the conduct of the summer session using the cloze technique as an instructional tool.

The students participating in the study were not asked to evaluate what they were doing during the summer sessions, but the proctors and discussion leaders were expected to answer frankly any questions that were asked and to record any problems that arose on a daily basis. A review of their comments reveals that some students were quite interested in the mechanisms involved in the process of completing cloze exercises; others were passive or simply ignored the sessions. Absenteeism was low throughout the summer, but was higher toward the end, as might be expected.

A few small problems arose in the mechanics of scoring: some students were in the habit of marking "x" for a correct answer rather than an error and this caused some confusion at the outset. This and other instances may reflect the rigidity with which students are accustomed to approaching a task. In fact the exercise of completing the cloze passages themselves was new for most students and took some adjustment. Fortunately, by the end of the six weeks, many students were asking

pointed questions, such as why they were required to participate in the study and so on, a healthy sign indeed.

Several students complained that the exercises were too "babyish", meaning probably that the reading difficulty was recognized as definitely not college level, even though an effort was made to find subject matter of general interest. It was -- and is -- vitally important for these students (who after all were accepted as college students despite the need for remedial work in most cases) to feel they were being given real college work. The problem arises then of whether to use existing college tests and attempt to assist students in coping with that reading material, which for most is extremely difficult, or to somehow modify (simplify) the existing material so that it can be more easily understood.[1]

Proctors and discussion leaders were asked to complete a short evaluation form at the end of the summer session. Some comments elicited dealt with the interest level of the material (not appropriate in some cases), the difficulty students had in accepting only a Verbatim "score" when it was apparent that other answers were as valid, and the fact that no specific procedures were detailed for the discussion groups. The instructions for the discussion groups were only general; it was up to the leader to handle each situation as it arose, and

---

[1] A study conducted at NTID in the summer of 1971 used college texts using a text reading approach system. Information may be obtained by contacting Dr. Gerard Walter or Mrs. Marilyn Enders at NTID.

discussion leaders were aware of this. Some of them felt uncomfortable, however, because no immediate explanation was available for each verbatim answer. Part of the objective for using the cloze procedure is that it allows one to attack large chunks of "real" written language (rather than contrived grammar exercises) with many complexities that cannot be "explained" in detail. Often language is arbitrary, and perhaps part of the skill of being able to cope with its arbitrariness may be developed through repeated confrontations with its complexities.

Most of the discussion leaders were members of the NTID English Department, and as such were in a position to assess and accept or reject the cloze technique as they felt it might be useful to them. One instructor, a skilled instructor with many years of experience with deaf students, was involved in the summer project from the outset. While responsibility for the project rested with the Research Department, he contributed valuable advice and assistance in the selection of materials and conduct of some of the discussion sessions. This instructor has adapted the cloze idea for use in evaluating students' comprehension after discussion of a poem and of a short story. Another instructor used some of the materials the following quarter for a "quickie" evaluation of his students' ability to supply the various form classes where required, and to identify and name the form classes.

Other instructors were most helpful in assisting in the

project but have not, so far as is known, found any particular use for the cloze technique in their own personal repertoire of tools for instruction.

Several potential uses for the cloze have been suggested previously. It has been identified as a tool for isolating instances of structural relationships within existing text and providing an approach to teaching these relationships. Context cues can be identified for students in using the cloze passages, particularly when discussing sentence, paragraph, and larger than paragraph context.

In addition, another use that has not been discussed here is use of the cloze as a device for fitting reading materials to the level of the student. The process of assigning a grade level equivalent is primarily done by publishers, using many different formulas, and for this reason it is not always possible to equate one publisher's materials with another's. Students undergo a similar process; their "level" can be assessed by means of several different reading tests, the results of which may vary. The teacher is left to "match" student with reading material on the basis of grade equivalents which may be far from dependable. The cloze technique may be used by a teacher very readily to determine whether students are able to cope with a given sample of reading material (Kazmierski, 1968).

The point must be emphasized again that the cloze technique can be valuable primarily as it is perceived as such and

utilized by an instructor, whether in a classroom or clinic setting, as a means of reaching that instructor's own goals for his students.

Chapter V

Conclusions

This paper has reported results and observations based on three studies dealing with the English language proficiency of deaf post-secondary students at the National Technical Institute for the Deaf. Some general conclusions may be drawn on the basis of the three studies.

1. In examining the English language proficiency of deaf students, one is dealing with extremely complex phenomena. "Syntax recognition" is not the key, according to the findings of the first study, to assessing linguistic abilities of these students; it is far too simplistic an approach. Cloze technique, which is more inclusive and touches a variety of skills, is perhaps too general an indicator of overall proficiency. Real problems exist, but they exist at other levels, including syntax and vocabulary and so on; these cannot be attacked by either a very simplistic or a very general approach.

2. There is no reason, based on the investigations reported here, to suggest that cloze replace a battery of tests for assessing English language skills of deaf subjects. On the other hand, cloze may be a useful adjunct to a testing program. A thorough linguistic analysis of each required response in a given exercise might give a fuller understanding of the linguistic processes involved as the student responds to the cloze exercise.

3. Cloze as an instructional technique should be left to the discretion of the teacher to use in any way which seems profitable under given circumstances. While the technique has been used in structured series, it is not universally useful and its employment should be tailored to the student's needs as the teacher interprets those needs. It is a tool and will be no more successful than the skills and imaginative resources of the teacher make it; in short, it is a tool like all other tools, dependent upon the user.

R/211:01:sv

(2/9/72)

REFERENCES

Academic Achievement Test Performance of Hearing Impaired Students. United States: Spring, 1969. Series D, No. 1. Office of Demographic Studies, Gallaudet College. Washington, D.C., 1969.

Bennett, S., Semmel, M., and Barritt, L. "The Cloze Procedure: A Review of the Literature and Possible Applications to the Study of Deviant Language Functions", Studies in Language and Language Behavior, Michigan U. Center for Research on Language and Language Behavior, 4:414-428, 1967.

Berko, Jean. "The child's learning of English morphology", in Saporta, S. (Ed.) Psycholinguistics: A Book of Readings. Holt, Rinehart & Winston, New York, 1961.

Bickley, A., Ellington, B., and Bickley, R. "The Cloze Procedure: A Conspectus", Journal of Reading Behavior, Vol. 2, No. 3, Summer 1970.

Bormuth, John R. "Readability: A New Approach", Reading Research Quarterly, Spring 1966, 79-132.

Chapanis, Alphonse. "The Reconstruction of Abbreviated Printed Messages", Journal of Experimental Psychology, No. 6, 1954, 496-510.

"Cloze Symposium", Yearbook of the National Reading Conference, 1969, 110-131.

Francis, W. Nelson. The Structure of American English. NY: The Ronald Press Co., 1958.

Fries, Charles. Linguistics and Reading. NY: Holt, Rinehart, and Winston, 1963.

_____. The Structure of English, NY: Harcourt, Brace & World, Inc., 1952.

Grolier Educational Corp., Reading Attainment System Series. NY: Grolier, 1969.

Jones, L., M. Goodman, and J. Wepman (1963), "The Classification of parts of Speech for the characterization of aphasia", Language and Speech, 6, 94.-

Kazmierski, Paul. Private Conversations, and materials developed for 1968 NDEA Institute in Reading, Bowling Green State University.

Lieberman, P. Intonation, Perception, and Language. Research Mongraph #38, MIT Press, Cambridge, Mass, 1967.

MacGinitie, Walter H. "Ability of Deaf Children to Use Different Word Classes", Journal of Speech and Hearing Research, 7, 1964, 141-150.

Marshall, William. "Contextual Constraint on Deaf and Hearing Children; Investigating the Effect at Fourth Grade Reading Level Using the Cloze Procedure", American Annals of the Deaf, Vol. 115, No. 7, Nov. 1970, 682-689.

McNeill, David. "The Capacity for Language Acquisition", Volta Review, Jan. 1966.

Miller, George A. & Friedman, Elizabeth A. "The Reconstruction of Mutilated English Texts", Information and Control, 1, 38-55, 1957.

Moores, Donald F. Application of "Cloze" Procedures to the Assessment of Psycholinguistic Abilities of the Deaf. Unpublished Ph.D. thesis, Unversity of Illinois, 1967.

_____. An Investigation of the Psycholinguistic Functioning of Deaf Children, Exceptional Children, Vol. 36: 645-652, May 1970.

Morrison, Helen M. and Black, John W. "Prediction of Missing Words in Sentences", Journal of Speech and Hearing Disorders, Vol. 22, No. 2, June 1957.

Odom, P., Blanton, R., and Nunnally, J. "Some 'Cloze' Technique Studies of Language Capabilities in the Deaf", Journal of Speech and Hearing Research, 10: 816-827, 1967.

Quigley, Stephen P. "The Influence of Fingerspelling on the Development of Language, Communication, and Educational Achievement in Deaf Children". Institute for Research on Exceptional Children, University of Illinois, 1968.

Rankin, E. F., Jr. "The Cloze Procedure - Its Validity and Utility", 8th Yearbook of the National Reading Conference, 8:131-144, 1959.

_____. "An Evaluation of the Cloze Procedure as a Technique for Measuring Reading Comprehension, Unpublished Ph.D. dissertation, U. Michigan, 1957.

Rosenstein, J., and MacGinitie, W., Eds. Verbal Behavior of the Deaf Child: Studies of Word Meanings and Associations. NY: Teachers College Press, 1969.

Rubenstein, Herbert and Aborn, Murray. "Learning, Prediction, and Readability", Journal of Applied Psychology, Vol. 42, No. 1, 1958, 28-32.

Science Research Associates, Inc. College Reading Program, Box 1, Chicago: S.R.A., 1968.

Simmons, Audrey A. "Ability of Deaf Children to Use Different Word Classes", Journal of Speech and Hearing Research, 7, 1964, 141-150.

Stuckless, E. R. and C. Marks. "The Assessment of Written Language of the Deaf". U.SOE Report, U. of Pitt, 1967.

Stuckless, E. R. and Enders, M. "Procedures and preliminary findings from a study of the post-secondary deaf students' ability to identify structural units and his language profiency." NTID, 1968.

Taylor, Wilson L. "'Cloze Procedure': A New Tool for Measuring Readability", Journalism Quarterly, Fall 1953, pp. 415-433.

_____. "Recent Developments in the Use of 'Cloze' Procedure", Journalism Quarterly, 1955, 42-48, 99.

Walter, Gerard. "Differences in the Meaning of Concepts for Deaf and Hearing Adolescents", Unpublished dissertation, U. of Pittsburgh, 1969.

_____. "A longitudinal study of deaf and hearing students in a post-secondary setting", National Technical Institute for the Deaf.

Weaver, Wendell W. and Kingston, Albert J. "A Factor Analysis of the Cloze Procedure and Other Measures of Reading and Language Ability", The Journal of Communication, December 1963, 252-261.

APPENDIX A

Structure Test

Name_____

Mark the sentences below.

Examples: a. Trees/grow.
b. Today/is/quite/cool.
c. A large brown dog/was running/ down the street.
d. John/delivered/milk/in the morning.
e. An apple/a day/is said/to keep/the doctor/away.

1. Birds fly.
2. John jogs every day.
3. Children learn quickly.
4. One lone star shone brightly.
5. All the soldiers fought well.
6. Spring is said to have come last year.
7. Joe may have been prepared for the exam.
8. Many beautiful pictures hung on the wall.
9. Militant students were agreeing to strike.
10. In an instant I knew a mistake had been made.
11. The two students had been hoping to graduate.
12. I saw an accident on Route 17 this afternoon.
13. A hungry animal raided Osborn's barn this morning.
14. He was selected, to his surprise, to represent the class.
15. In the early morning ducks honk wake-up music to the day.
16. A lovely yellow and orange sunset appeared on the horizon.
17. Like geese, some tourists continue to return to the lodge.
18. She gave her sister a large lamp on her birthday last week.
19. My large suitcase was stolen from the airport terminal building.
20. She took swimming lessons at the local school pool for several years.
21. The weakened bridge collapsed, and several people were carried to their deaths.

APPENDIX B
Cloze Tests

STORY ONE -- "A VISITOR IN NEW YORK"

Let me tell the story of my (1)_____ first visit. I was sent a pressing (2)_____ to visit New York. I was assured of (3)_____ sort of hospitality. Now, it is well (4)_____ to travellers that if you are offered (5)_____ by say, a desert Arab, while you (6)_____ under his tent he considers himself completely (7)_____ for your welfare and happiness.

With the New Yorker, (8)_____ is different. He lures you with the (9)_____ lavish of offers of friendships, but once (10)_____ are in his tent, he is very (11)_____ to slip out by the back flap (12)_____ urgent business in California.

"I'm sorry," my host (13)_____, "I've got to go to Los Angeles. There's (14)_____ crisis. Still, you'll be all right, I'm (15)_____. I'll call you tomorrow."

I dressed and (16)_____ down to the lobby. I spoke to (17)_____ man I took to be the assistant (18)_____. I said: "I am a total stranger (19)_____ this city. What shall I do? Where (20)_____ I go?"

"Why," he said at last, "(21)_____ suggest you go and see Grant's Tomb."

This, (22)_____ gathered, was witty.

I almost lost my (23)_____, but then I recovered myself. I was (24)_____ laughed at as a stranger. Very well, (25)_____ would be one. I went to see Grant's Tomb.

(26)_____ ride was long. New York taxi drivers are (27)_____ for their humour, and mine whetted his (28)_____ on me. When I came out of (29)_____ monument, he said:

"Well, Mac, now you've (30)_____ it, who is buried in

Grant's Tomb? It's (31)_____ joke," he explained (he had previously explained (32)_____ of his jokes). "There's this quiz program, (33)_____ when they get someone who is really (34)_____, they say, 'Who is buried in Grant's Tomb?'".

(35)_____ answer," I said, as evenly as I (36)_____ manage, "is Mrs. Grant."

He was astounded. He (37)_____ not believe me, and nothing would satisfy (38)_____ until he had gone inside and seen (39)_____ himself.

He came out all respect for (40)_____.

"Whad d'ya know? She damn well is!", (41)_____ said. "Twenty years at this wheel and (42)_____ never knew it."

The taxi driver told (43)_____ doorman, the doorman told the clerk, the (44)_____ told the manager, who bought me a (45)_____ at the bar, where I soon found (46)_____. I had stumbled on a secret: the New Yorker (47)_____ anybody who can tell him something about (48)_____ city that he does not know, and (49)_____ he never has time to look at (50)_____, the feat is not difficult.

After a week in the city, I no longer felt like a stranger.

STORY TWO -- "RIDING THE SURF"

Surfing is the sport of riding the (1)_____ on a "board" of polyurethane foam covered (2)_____ fiber glass and resin. It's not only (3)_____ sport, it's an art-- the art of (4)_____ on the board while sliding down or (5)_____ the face of a shorebound wave. It (6)_____ simple and it looks even simpler, but (7)_____ a beginner your first attempts usually lead (8)_____ bitter frustration. You battle the slippery glass (9)_____ of the surfboard in an effort to (10)_____ lie upon it. A few minutes of (11)_____ assure you that you have muscles you've (12)_____ used before and you'll never be able (13)_____ use again. An approaching wave of a (14)_____ feet towers and crashes down, tearing the (15)_____ away from your wrenchlike grip. You swim. (16)_____ struggle to shore leaves you exhausted but (17)_____ to get even.

If you are relaxed, (18)_____ fairly good balance, and know something about (19)_____ fundamentals of surfing, success should be yours (20)_____ the first day. A swell mounts behind (21)_____ and appears over your shoulder to be (22)_____ breaking. You "scratch" toward shore with all (23)_____ power until you feel yourself being lifted (24)_____ the onrushing wave. Still paddling, you feel (25)_____ board gathering momentum and suddenly you're no (26)_____ going up, but hurtling directly toward the (27)_____ at breakneck speed. Carefully you push up (28)_____ your hands and at the same time (29)_____ yourself to a kneeling position, then to a (30)_____ position. Wobbling, you struggle to raise yourself (31)_____ an erect

position and all of a (32)_____ you realize you are standing... you've mastered (33)_____ ocean... it's a flying sensation and you're (34)_____ surfing. You've been teased with the momentary (35)_____ of your first ride and you're on (36)_____ way. You've got a "surfboard on your (37)_____".

Once you've successfully mastered the basic skill of (38)_____ on a surfboard, you're a surfer (39)_____ life. You never look at a wave (40)_____ visually exploring the possibilities of riding that (41)_____. And as you look around, you realize (42)_____ you're not alone. The fraternity of surfers (43)_____ growing each year, and what used to be (44)_____ desolate beach is now someone's favorite surf (45)_____.

An even closer look will reveal that (46)_____ all surfers ride surfboards. There are a (47)_____ of different methods of riding the surf. (48)_____ one has its own group of devoted (49)_____ who will swear that their particular type (50)_____ surfing is the only way.

STORY ONE - "A VISITOR IN NEW YORK"
ANSWER KEY

1. very
2. invitation
3. every
4. known
5. hospitality
6. are
7. responsible
8. it
9. most
10. you
11. inclined
12. on
13. said
14. a
15. sure
16. went
17. a
18. manager
19. in
20. shall
21. I
22. I
23. temper
24. being
25. I
26. The
27. famous
28. wit
29. the
30. seen
31. a
32. all
33. and
34. stupid
35. the
36. could
37. would
38. him
39. for
40. me
41. he
42. I
43. the
44. clerk
45. drink
46. friends
47. loves
48. his
49. since
50. it

STORY TWO - "RIDING THE WAVES"
ANSWER KEY

1. waves
2. with
3. a
4. balancing
5. across
6. sounds
7. as
8. to
9. surface
10. merely
11. paddling
12. never
13. to
14. few
15. board
16. The
17. determined
18. have
19. the
20. sometime
21. you
22. already
23. your
24. by
25. the
26. longer
27. bottom
28. with
29. bring
30. crouching
31. to
32. sudden
33. the
34. actually
35. thrill
36. your
37. back
38. standing
39. for
40. without
41. wave
42. that
43. is
44. a
45. spot
46. not
47. number
48. Each
49. followers
50. of

EXPERIMENTAL LANGUAGE INSTRUCTION

Information for Students

Group I - Free Response
Group II - Controlled Choice

Please read the following information carefully.

As you know, for the next seven weeks you will be participating in a program called Experimental Language Instruction.

You have been assigned to Group . You will meet three times a week for an hour. You will work on practice exercises during each class period. The purpose of these exercises is to help you with reading, grammar, and writing.

These exercises are different from other kinds of instruction you have had before. You will not have a lesson taught by a teacher. You will work on your own. You will check your own work when you finish each day. You will be able to see if your score improves as you work through the summer.

During your first week at NTID, you took reading, writing, and grammar tests. During the last week of your summer program, you will take three of these tests again. We will compare your scores on the first ones with your scores on the last ones. We will be able to tell if you have improved in your reading, writing, and grammar over the summer. We will tell you what your scores are.

Your scores will not make any difference in what classes you will be assigned to in the fall. We are trying to give you extra language practice during the summer. We hope it will help you, and may even be fun.

Remember: you will be working on your own. So you must try your best to complete the exercises to the best of your ability. You must work carefully, and think about your answers.

Please keep this page of information.

EXPERIMENTAL LANGUAGE INSTRUCTION

Information for Students
Group III - Discussion

Please read the following information carefully.

As you know, for the next seven weeks you will be participating in a program called Experimental Language Instruction.

You have been assigned to Group III. You will meet three times a week for an hour. You will work on practice exercises during each class period. The purpose of these exercises is to help you with reading, grammar, and writing.

These exercises are different from other kinds of instruction you have had before. You will not have a lesson taught by a teacher. You will work through exercises yourself. Then you will discuss your answers with the teacher and the other students in the class. You will try to decide together whether some answers are good and others are bad. But the exercises will only help you if you do the best you can.

During your first week at NTID, you took reading, writing, and grammar tests. During the last week of your summer program, you will take three of these tests again. We will compare your scores on the first ones with your scores on the last ones. We will be able to tell if you have improved in your reading, writing, and grammar over the summer. We will tell you what your scores are.

Your scores will not make any difference in what classes you will be assigned to in the fall. We are trying to give you extra language practice during the summer. We hope it will help you, and may even be fun.

Please keep this page of information.

EXPERIMENTAL LANGUAGE INSTRUCTION

Information for Students
Group IV - Control

Please read the following information carefully.

As you know, for the next seven weeks you will be participating in a program called Experimental Language Instruction.

You have been assigned to Group IV. You will not have class during most of weeks 2,3,4,5,6, and 7. You may use the time marked on your schedule as "E.L.I." to study on your own, or to do whatever you wish.

During the last week of the summer program, you will take three tests. These are like three of the tests you took during the first week. We will tell you later when and where the tests will be given. Even though you do not come to class during most of the program, you must take the tests at the end of the program.

We will tell you what your scores are. Your scores will not make any difference in what classes you will be assigned to in the fall.

Please keep this page of information.

APPENDIX D

ELI Materials

NAME_____ Cover Page - Group I

Write your name on this page and on the next one.

DIRECTIONS: This is an exercise to give you practice in reading and grammar. It consists of a story. Some words have been left out of it.

Read the story first. Then fill in each blank with the word you think best fits the story. Sometimes this will be easy, sometimes hard. In some blanks several different words could be correct.

You may go back and read the story again. You may change your answers as you work.

Remember these rules:

1. Fill in all the blanks.
2. Use only one word in each blank.
3. Do not use contractions. (examples: can't, won't, she's)

After everyone has filled in the blanks, you will get an Answer Key. Check to make sure the name of the story matches the title on the Answer Key. Check your answers with this list of correct answers. Put an "x" on your answer sheets in front of each word you filled in correctly.

ELI Materials

Cover Page - Group II

NAME_____

Write your name on this page and on the next page.

DIRECTIONS: This is an exercise to give you practice in reading and grammar. It consists of a story. Some words have been left out of it. You also have a Multiple Choice list for the story. Make sure the name of the story matches the title on the Multiple Choice list.

On the Multiple Choice list are pairs of words for each blank in the story. You must choose one word from each pair. One of these words is the correct word. Write your choice in the proper blank in the story.

Read the story first. Then fill in each blank with the word you think best fits the story. You may go back and read the story again. You may change your answers as you work.

Remember these rules:

1. Fill in all the blanks.
2. Put only one word in each blank.
3. Use only one of the two words given on the Multiple Choice list for each blank. Do not use any other words.

After everyone has filled in the blanks, you will get an Answer Key. Make sure the title of the story is the same as the title on the Answer Key. Check your answers with this list of correct answers. Put an "x" on your answer sheets in front of each word you filled in correctly.

ELI Materials

Cover Page - Group III

NAME_____

Write your name on this page and on the next page.

DIRECTIONS: This is an exercise to give you practice in reading and grammar. It consists of a story. Some words have been left out of it. Read the story first. Then fill in each blank with the word you think best fits the story.

Work quickly. You will have about 15 minutes to fill in all the blanks.

Remember these rules:

1. Fill in all the blanks.
2. Put only one word in each blank.
3. Do not use contractions. (examples: can't, won't, she's)

After everyone has filled in all the blanks, you will have a chance to talk about the story. You can compare your answers with the other students. You can discuss youranswers with the teacher. You can discuss why some answers are better than others. This will help you decide whether your answers are good or bad. No one will tell you-- you must judge how well you have filled in the blanks.

DO NOT CHANGE YOUR ANSWERS AFTER YOU HAVE FILLED THEM IN ONCE. Put an "x" on your answer sheets in front of the ones you think are good answers. When the class is over, you will have an idea of how many of your answers were good ones.

NAME_____

THE JURY MUST DECIDE

In America, a man on trial for _____(1)_____ serious crime has a special right. He _____(2)_____ the right to be tried by a _____(3)_____ of men called a jury. But just _____(4)_____ does the jury do? Why is trial _____(5)_____ jury so important?

In a trial, the _____(6)_____ and the members of the jury are _____(7)_____. They work together to decide what happens _____(8)_____ the man on trial. But they don't _____(9)_____ the same things. The judge is a _____(10)_____ lawyer. The jury men are not lawyers. _____(11)_____ are just ordinary people. So the judge _____(12)_____ the jury decide different parts of a _____(13)_____. To see how it works, let's look _____(14)_____ the trial of Bill Jones:

The jury decides _____(15)_____ happened. Bill Jones is on trial for killing _____(16)_____ wife. She was found dead with her _____(17)_____ in a gas oven. The gas was _____(18)_____ on. Two neighbors say that Bill and _____(19)_____ wife fought a lot. On the other _____(20)_____, friends say that Mrs. Jones had the blues _____(21)_____ the time. She often said she would "_____(22)_____

it all." No one seems sure where Bill _____(23)_____ when his wife died.

What really happened? _____(24)_____ Bill kill his wife? Or did she _____(25)_____ herself? The jury decides. Usually, the judge can _____(26)_____ even say what he thinks happened. The _____(27)_____ must decide by itself.

The judge explains _____(28)_____ law. There are many rules of law _____(29)_____ deal with crime. Killing in cold blood _____(30)_____ murder. Killing in a sudden rage is manslaughter. _____(31)_____ in self-defense is bad, but it _____(32)_____ not be a crime at all.

In Bill's _____(33)_____, the judge must tell the jury which _____(34)_____ might fit the case. He tells the _____(35)_____ what these laws mean.

The jury decides _____(36)_____ a law was broken. Let's say the _____(37)_____ decides that Bill Jones killed his wife. Now _____(38)_____ have to decide what law was broken. _____(39)_____ the crime murder? Or was it manslaughter? _____(40)_____ there any excuse for what Bill did? _____(41)_____ jury must decide

which law Bill broke.

_____ judge passes sentence. Let's say that the
42

_____ has decided Bill Jones is guilty of _____.
43 44

Now the judge has to say what _____ to be done to Bill.
45

He must _____ sentence. "Bill Jones gets 20 years" is
46

_____ sentence. So is "Bill Jones will go to _____
47 48

for life." Of course, if the jury _____ said that Bill was
49

not guilty, there _____ be no sentence. Bill would go
50

free.

The jury system helps protect all people on trial.

THE JURY MUST DECIDE

Key

Check your answers using this list. Put an "x" on your answer sheets in front of each word you filled in correctly.

1. a
2. has
3. group
4. what
5. by
6. judge
7. partners
8. to
9. do
10. trained
11. They
12. and
13. case.
14. at
15. what
16. his
17. head
18. turned
19. his
20. hand
21. all
22. end
23. was
24. Did
25. kill
26. not
27. jury
28. the
29. that
30. is
31. Killing
32. may
33. trial
34. laws
35. jury
36. if
37. jury
38. they
39. Was
40. Was
41. The
42. The
43. jury
44. murder
45. is
46. pass
47. a
48. jail
49. had
50. would

THE JURY MUST DECIDE

Controlled Choice

Below are listed pairs of words for each blank in the story. From each pair of words, choose the word you think best fits the story. Write it in the blank on your answer sheets.

(1)	a an	(18)	turned turn	(35)	them jury
(2)	have has	(19)	a his	(36)	if it
(3)	many group	(20)	way hand	(37)	jury judging
(4)	what that	(21)	some all	(38)	one they
(5)	of by	(22)	stopping end	(39)	Has Was
(6)	judge just	(23)	is was	(40)	Have Was
(7)	partners partner	(24)	Did Has	(41)	anything the
(8)	to of	(25)	killed kill	(42)	the and
(9)	has do	(26)	not ever	(43)	jury juries
(10)	train trained	(27)	many jury	(44)	kill murder
(11)	They them	(28)	the sometimes	(45)	punishment is
(12)	and so	(29)	what that	(46)	passed pass
(13)	case cases	(30)	were is	(47)	a what
(14)	carefully at	(31)	killer killing	(48)	away jail
(15)	what how	(32)	may is	(49)	would had
(16)	the his	(33)	trial try	(50)	would cannot
(17)	one head	(34)	laws lawful		

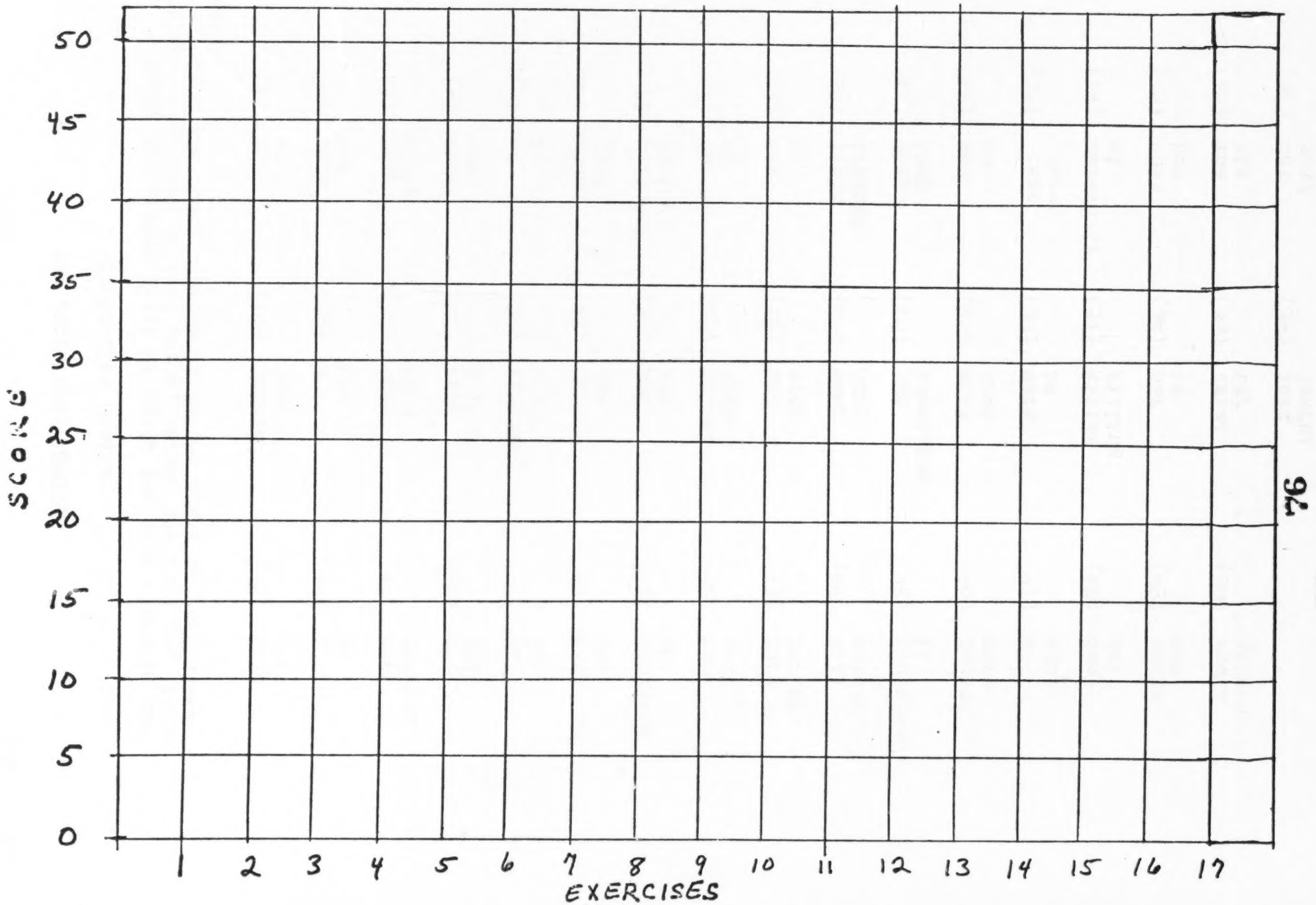
Score Chart

Group _____

73

EXPERIMENTAL LANGUAGE INSTRUCTION

Student Data Record



76

APPENDIX E

PROCEDURES - Group I

1. First class: pass out "information for students" sheet. Students read. Answer questions.

   Emphasize that students will be doing practice exercises- not tests. The exercises will only benefit students if they do the best they can in filling in the blanks.

   Students are expected to attend all classes. Attendence will be taken -- proctors take attendence at beginning of class.

2. Pass out stories.

3. Students fill in names on top of direction sheet and on first page of story.

4. Students read directions. Answer any questions about what they are to do.

   Explain that no questions will be answered during the class about the meaning of words in the stories.

5. Students fill in the blanks, using the one word for each blank that they feel best fits the story.

   Emphasize that students should take their time and work carefully. They will have about 35 minutes to fill in the blanks. If they finish early, they should check over papers carefully.

   Proctor records number of minutes from the time students begin to fill in blanks until all students finish filling in. This is important for research purposes.

6. When all students finish fill-ins, pass out answer keys for scoring. Students mark correct answers on story pages by putting "x" in front of correct answers. Students add up total of correct answers and write score at top of first page of story.

   First class: Wait until 10 minutes before end of class to pass out keys. After the first class, wait until all have finished and gone over papers, and record time. Then pass out keys.

7. Each student may leave as soon as he finishes scoring his paper. Be sure each student hands in:

   a) answer sheet (story).
   b) key

8. Note any problems on evaluation sheet.

PROCEDURES - Group II
Controlled Choice

1. First class: pass out "information for students" sheet. Students read. Answer questions.

   Emphasize that students will be doing practice exercises- not tests. The exercises will only benefit students if they do the best they can in filling in the blanks.

   Students are expected to attend all classes. Attendence will be taken-- proctors take attendence at beginning of class.

2. Pass out stories first, then multiple choice lists.

3. Students fill in names on top of direction sheet and on first page of story.

4. Students read directions. Answer any questions about what they are to do.

   Explain that during the class no questions will be answered about the meaning of words in the stories.

5. Students fill in the blanks, choosing one word from each pair for each blank.

   Emphasize that students should take their time and work carefully. They will have about 35 minutes to fill in the blanks. If they finish early, they should check over papers carefully.

   Proctor records number of minutes from the time students begin to fill in blanks until all students finish filling in. This is important for research purposes.

6. When all students finish fill-ins, pass out answer keys for scoring. Students mark correct answers on story pages by putting "x" in front of correct answers. Students add up total of correct answers and write score at top of first page of story.

   First class: wait until 10 minutes before end of class to pass out keys. After first class, wait until all have finished and gone over papers, and record time. Then pass out keys.

7. Each student may leave as soon as he finishes scoring his paper. Be sure each student hands in:

   78

   a) answer sheet (story).
   b) multiple choice list
   c) key

8. Note any problems on evaluation sheet.

PROCEDURES - Group III
Discussion

1. Students fill in names on both pages.

2. Students read directions-- answer any questions about what they are to do.

3. Students fill in blanks quickly-- call time after 15 minutes.

4. Teacher asks students to give answer for each blank-- one item at a time-- and writes them on the board quickly. He may evaluate each answer as good ("that fits", "OK", etc.), or ask for students to say which answers are good or which do not fit at all.

   It is important not to "push" students who are not very good at this, but to emphasize that we are all guessing (including the teacher) and that this is an exercise for practice, not a test.

   Explain, or ask students to say, why wrong answers are wrong-- ex: "you need a noun here, not a verb", or "it should be plural, not singular, because the pronoun is plural", etc.

   This will be pretty much "seat of the pants" flying-- the main idea is to emphasize and point out context clues which can be used to find some correct answer.

   Emphasize that there are many possible grammatically correct answers-- but some are more "logical" than others, usually, depending on the context of the whole story.

   Do not give <u>key</u> answers at this point. Students should not change answers after filling the blanks initially.

   You will probably not finish all the items in an hour.

5. During the last five or ten minutes, pass out the keys for students to see how well they "outguessed" the key. They may put "x " in front of verbatim responses to get an idea of their score-- there will be no formal scoring except for our analysis.

   Emphasize that this is not a test but a practice exercise-- but it will only help them if they do the best they can on it.

National Technical Institute for the Deaf
Division of Research & Training
One Lomb Memorial Drive
Rochester, New York 14623